10. Paint

Program Name: Paint.java Input File: paint.dat

You are in art class and you are bored. Your teacher is having you color different cells of a grid. Since this is a pretty mundane task, you decide to see what would happen if you were to fold the paper in half, press both sides together, take it apart and repeat the steps a number of times.
You decide to start with certain grid cells painted in, and then perform a combination of horizontal and vertical folds, and then see what the end result looks like.
However, the paint keeps seeping out of the grid lines, and you can never fold the paper perfectly, so you decide to write a program to show you the outcome.

Input
The first line of input contains T, the number of test cases that follow.
The first line of each test case contains two integers N and M, the number of rows and columns in the grid on your paper.
The next N lines each contain M characters, representing each row of the grid. At each cell, if the character is 'x', there is paint there, and if the character is '.', there is no paint there.
The line after that contains a string composed of only 'H' and 'V'. This string represents the series of folds you are going to perform to spread the paint out, in order from left to right.

Output
For each test case, output the final result of folding the paper according to the specified instructions.

Constraints
```
1 <= T <= 20
1 <= N, M <= 15
1 <= number of folds <= 10
```

Example Input File
```
3
2 4
x...
..x.
H
3 3
x.x
.x.
...
V
4 4
x...
.x..
....
....
VH
```

Example Output to Screen
```
x..x
.xx.
x.x
.x.
x.x
x..x
.xx.
.xx.
x..x
```